

REMARKS

In view of the following remarks, Applicants request favorable reconsideration of the above-identified application.

Claims 29 and 32-34 remain pending in this application, with Claims 29 and 32 being independent.

Claims 29 and 32-34 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,772,905 (Chou) in view of U.S. Patent Nos. 3,894,710 (Sarofeen) and 6,157,488 (Ishii). Applicants traverse this rejection.

As recited in independent Claim 29, Applicants' invention is directed to a method of manufacturing an optical element by forming a second diffraction grating on a first diffraction grating, through molding. The method involves aligning a mold to be used for the molding of the second diffraction grating, by engaging a recess alignment mark provided on the mold with a protrusion alignment mark provided on a substrate of the first diffraction grating.

Independent Claim 32 is directed to a method similar to that recited in independent Claim 29; however, in independent Claim 32, the recess alignment mark is provided on the substrate and the protrusion alignment mark is provided on the mold.

In the Office Action dated October 26, 2004 ("previous Office Action"), a combination of Chou and Ishii were used to reject independent Claim 29. In the Amendment filed on March 28, 2005, Applicants amended that claim and addressed the failure of those patents to teach features of the claimed invention. In particular, while Chou describes alignment marks, the alignment methods discussed in that patent include an

optical alignment method based on detecting moiré and an alignment method based on capacitance between the alignment marks. Chou does not suggest using molds and substrates which have recesses and protrusions which physically engage each other to align those items.

Ishii was cited in the previous Office Action as describing diffractive optical elements in which multiple diffractive gratings are stacked on each other. While the previous Office Action used that patent to describe forming a first periodic structure on a second periodic structure, there is no disclosure in that patent of the recesses and protrusions of the present invention.

To overcome the deficiencies of Chou and Ishii, the present Office Action further cites Sarofeen. The present Office Action states that Sarofeen teaches alignment nubs 3 and alignment detents 4 on the mold and engaging substrate, respectively. However, Applicants note that the substrate recited in independent Claims 29 and 32 is the substrate on which the first diffraction grating is formed.

As shown in Figures 1-3 of Sarofeen, the alignment nubs 3 and alignment detents 4 are formed on top and bottom molds. Applicants submit that nothing in that patent suggests the use of a combination of recess and protrusion alignment marks used to engage a mold and *a substrate on which a first diffraction grating is formed*.

Accordingly, Applicants submit that Chou, Sarofeen, and Ishii, taken alone or in combination, fail to disclose or suggest at least the features of performing alignment of a mold to be used for the molding of a second diffraction grating by engaging a recess (or protrusion) alignment mark provided on the mold for the second diffraction grating with a

protrusion (or recess) alignment mark provided on a substrate on which a first diffraction grating is formed, as variously recited in independent Claims 29 and 32.

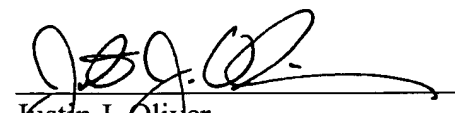
The remaining claims pending in this application are dependent claims which depend from the independent claims discussed above. Applicants submit that those claims are allowable for the reasons discussed above with respect to the independent claims, as well as for defining additional features of the invention which further distinguish those claims from the cited patents.

Accordingly, Applicants request withdrawal of the rejection under 35 U.S.C. § 103.

This Response After Final Rejection is an earnest attempt to advance prosecution and is believed to clearly place this application in condition for allowance. Accordingly, Applicants respectfully request entry of this Amendment under 37 CFR § 1.116.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


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